CLAIMS:

1. A thermal printer for use with a dye donor web having successive dye transfer areas and two opposite edge areas alongside each dye transfer area, and capable of preventing crease formation in a dye transfer area that can cause line artifacts to be printed on a dye receiver, said printer comprising:

a thermal print head in pressure contact with the dye transfer area and two opposite edge areas alongside the dye transfer area, and adapted to heat the dye transfer area sufficiently to cause a dye transfer from the dye transfer area to a dye receiver, but not heating the two edge areas sufficiently to allow a dye transfer from the two edge areas to the dye receiver, so that the dye transfer area is vulnerable to being stretched relative to the two edge areas to possibly form creases in the dye transfer area;

a sensor and control device for determining variations in at least one operating parameter at said print head that can cause stretching of the dye transfer area relative to the two edge areas, during pressure contact of said print head with the dye transfer area and the two edge areas; and

a pressure applying device connected to said sensor and control device to adjust pressure contact of said print head with the dye transfer area and two edge areas in accordance with variations that are determined via said sensor and control device, to prevent the dye transfer area from being stretched relative to the two edge areas, whereby creases will not be formed in the dye transfer area.

2. A thermal printer as recited in claim 1, wherein said pressure applying device adjusts the magnitude of pressure contact of said print head with the dye transfer area and two edge areas at different locations between said print head and the dye transfer area and two edge areas to create a pressure profile that prevents the dye transfer area from being stretched relative to the two edge areas.

3. A thermal printer as recited in claim 2, wherein said pressure applying device includes a plurality of pressure applying members that each bear down on said print head at separate locations along said print head and are independently adjustable as to the amount of pressure applied and their location in order to apply pressure against the two edge areas that is greater than pressure applied against the dye transfer area.

4. A thermal printer for use with a dye donor web having successive dye transfer areas and two opposite edge areas alongside each dye transfer area, and capable of preventing crease formation in a dye transfer area that can cause line artifacts to be printed on a dye receiver, said printer comprising:

a thermal print head in pressure contact with the dye transfer area and the two edge areas alongside the dye transfer area, and adapted to heat the dye transfer area sufficiently to cause a dye transfer from the dye transfer area to a dye receiver, but not heating the two edge areas sufficiently to allow a dye transfer from the two edge areas to the dye receiver, so that the dye transfer area is vulnerable to being stretched relative to the two edge areas to possibly form creases in the dye transfer area;

a donor web take-up that can longitudinally tension the dye transfer area and two edge areas at said print head sufficiently to stretch the dye transfer area relative to the two edge areas when the dye transfer area is heated to cause a dye transfer to the dye receiver;

a sensor and control device for determining variations in at least one operating parameter at said print head that can cause stretching of the dye transfer area relative to the two edge areas; and

a pressure applying device connected to said sensor and control device to adjust pressure contact of said print head with the dye transfer area and two edge areas in accordance with variations that are determined via said sensor and control device, to apply pressure against the two edge areas that is greater than pressure applied against the dye transfer area, so that when said donor web take-up longitudinally tensions the dye transfer area and two edge areas the dye

transfer area and two edge areas will be similarly stretched in order to prevent to prevent crease formation in the dye transfer area.

5. A thermal printer as recited in claim 4, wherein said sensor and control device senses temperatures of the dye transfer area and two edge areas at said print head and determines whether differences in temperatures of the dye transfer area and two edge areas makes the dye transfer area vulnerable to being stretched relative to the two edge areas.

6. A thermal printer as recited in claim 4, wherein said print head has a linear array of heater elements that contact the dye transfer area and two edge areas widthwise at said print head, sensors in said sensor and control device sense temperatures of said heater elements, and a controller in said sensor and control device determines whether temperatures of said heater elements that contact the dye transfer area when compared to temperatures of said heater elements that contact the two edge areas makes the dye transfer area vulnerable to being stretched relative to the two edge areas.

7. A thermal printer as recited in claim 6, wherein sensors in said sensor and control device sense longitudinal tensions of the dye transfer area and two edge areas at said linear array of heater elements that contact the dye transfer area and two edge areas widthwise, and said controller determines whether temperatures of said heater elements that contact the dye transfer area and two edge areas and longitudinal tensions of the dye transfer area and two edge areas can cause the dye transfer area to be stretched relative to the two edge areas.

8. A thermal printer as recited in claim 4, wherein sensors in said sensor and control device sense temperatures and longitudinal tensions of the dye transfer area and two edge areas at said print head, and a controller in said sensor and control device determines whether temperatures and longitudinal tensions of the dye transfer area and two edge areas can cause the dye transfer area to be stretched relative to the two edge areas.

9. A method in a thermal printer of preventing crease formation in a dye transfer area of a dye donor web that can cause line artifacts to be printed on a dye receiver during a dye transfer from the dye transfer area to the dye receiver, said method comprising:

providing a thermal print head in pressure contact with the dye transfer area and two opposite edge areas alongside the dye transfer area;

using the print head during pressure contact with the dye transfer area and two edge areas to heat the dye transfer area sufficiently to cause a dye transfer from the dye transfer area to a dye receiver, but not heat the two edge areas sufficiently to allow a dye transfer from the two edge areas to the dye receiver, so that the dye transfer area is vulnerable to being stretched relative to the two edge areas to possibly form creases in the dye transfer area;

determining variations in at least one operating parameter at the print head that can cause stretching of the dye transfer area relative to the two edge areas; and

adjusting pressure contact of the print head with the dye transfer area and two edge areas in accordance with variations that have been determined, to prevent the dye transfer area from being stretched relative to the two edge areas, whereby creases will not be formed in the dye transfer area.

10. A method in a thermal printer of preventing crease formation in a dye transfer area of a dye donor web that can cause line artifacts to be printed on a dye receiver during a dye transfer from the dye transfer area to the dye receiver, said method comprising:

using a thermal print head in pressure contact with the dye transfer area and two opposite edge areas alongside the dye transfer area to heat the dye transfer area sufficiently to cause a dye transfer from the dye transfer area to a dye receiver, but not heat the two edge areas sufficiently to allow a dye transfer from the two edge areas to the dye receiver, so that the dye transfer area is vulnerable to being stretched relative to the two edge areas to possibly form creases in the dye transfer area;

longitudinally tensioning the dye transfer area and two edge areas at the print head;

determining variations in at least one operating parameter at the print head that can cause stretching of the dye transfer area relative to the two edge areas, during pressure contact of the print head with the dye transfer area and two edge areas; and

adjusting pressure contact of the print head with the dye transfer area and two edge areas in accordance with variations that have been determined, to apply pressure against the two edge areas that is greater than pressure applied against the dye transfer area, so that when the dye transfer area and two edge areas are longitudinally tensioned they will be similarly stretched in order to prevent to prevent crease formation in the dye transfer area.

11. A method as recited in claim 10, wherein variations in at least one operating parameter at the print head are determined by sensing temperatures of the dye transfer area and two edge areas at the print head and determining whether a difference in temperatures of the dye transfer area and two edge areas makes the dye transfer area vulnerable to being stretched relative to the two edge areas.

12. A method as recited in claim 10 wherein the print head has a linear array of heater elements that contact the dye transfer area and two edge areas widthwise at the print head, and variations in at least one operating parameter at the print head are determined by sensing temperatures of the heater elements and determining whether temperatures of the heater elements that contact the dye transfer area when compared to temperatures of the heater elements that contact the two edge areas makes the dye transfer area vulnerable to being stretched relative to the two edge areas.

13. A thermal printer as recited in claim 12, wherein longitudinal tensions of the dye transfer area and two edge areas at the linear array of heater elements that contact the dye transfer area and two edge areas widthwise

are sensed, and it is determined whether temperatures of the heater elements that contact the dye transfer area and two edge areas and longitudinal tensions of the dye transfer area and two edge areas can cause the dye transfer area to be stretched relative to the two edge areas.

14. A method as recited in claim 10, wherein variations in at least one operating parameter at the print head are determined by sensing temperatures and longitudinal tensions of the dye transfer area and two edge areas at the print head and determining whether temperatures and longitudinal tensions of the dye transfer area and two edge areas can cause the dye transfer area to be stretched relative to the two edge areas.